[029] Fig. 4 is a schematic view of a fourth example embodiment of a multi-stage transmission according to the invention; [[and]]

[030] Fig. 5 is a shift scheme for the multi-stage transmission according to the invention, as illustrated in Figs. 1, 2, 3 and 4;

Fig. 6 is a diagrammatic view of an embodiment of the inventive multiple gear transmission having a differential;

Fig. 7 is a diagrammatic view of an embodiment of the inventive multiple gear transmission with a clutch and a prime mover;

Fig. 8 is a diagrammatic view of an embodiment of the inventive multiple gear transmission having the transmission located between a starting element and a prime mover;

Fig. 9 is a diagrammatic view of an embodiment of the inventive multiple gear transmission for a front-transverse installation with a prime mover;

Fig. 10 is a diagrammatic view of an embodiment of the inventive multiple gear transmission having a prime mover and a damper;

Fig. 11 is a diagrammatic view of an embodiment of the inventive multiple gear transmission with a power take off for an additional aggregate;

Fig. 12 is a diagrammatic view of an embodiment of the inventive multiple gear transmission having a free wheel;

Fig. 13 is a diagrammatic view of an embodiment of the inventive multiple gear transmission with an electric machine;

Fig. 14 is a diagrammatic view of a preferred design of the inventive multiple gear transmission having a wear free brake; and

Fig. 15 is a diagrammatic view of a further embodiment of the invention with the input and output are provided on the same side of the transmission housing.

[045] According to the invention, as shown in Fig. 12, at any suitable point in the multi-stage transmission additional freewheels, e.g., only one freewheel 42 is shown in this Figure, can be provided, for example between a shaft and the housing G or in order to divide or to connect a shaft.

[046] In addition, thanks to the structure according to the invention the drive input and output shafts can be arranged either on the same side of the transmission, as shown in Fig. 15, or on opposite sides. In addition, as shown in Fig. 6 an axle differential or a transfer differential 20 can also be arranged on the drive input or drive output of the transmission.

[047] In an advantageous further development the drive input shaft can if necessary be separated from a drive motor or prime mover 30 by a coupling element or clutch element 24, as shown in Fig. 7, and ~~as that~~ the coupling element can be one of a hydrodynamic converter, a hydraulic clutch, a dry starter clutch, a fluid starter clutch, a magnetic powder clutch or a centrifugal clutch can be used.

[048] Such a starting element 28 can also be arranged after the transmission, as shown in Fig. 8, and in that case the drive input shaft is in fixed connection with the crankshaft 32 of the engine or prime mover 30, as shown in Fig. 9. According to the invention, starting can also take place by means of a shift element of the transmission, preferably by means of the brake 04, the brake 03 or the clutch 16.

[049] The multi-stage transmission, according to the invention, also enables a torsional oscillation damper 34 to be arranged between the engine or prime mover 30 and the transmission, as shown in Fig. 10.

[050] In a further embodiment of the invention ~~(not illustrated)~~ shown in Fig. 14, a wear-free brake 42 can be arranged on any shaft, preferably in the drive input shaft or the drive output shaft, and this is of particular importance especially for

use in ~~goods~~ commercial vehicles. An auxiliary drive output 38, as shown in Fig. 11, can also be provided on any shaft for driving additional aggregates, only one aggregate 36 is shown in this Figure.

[052] A further advantage of the multi-stage transmission proposed here as shown in Fig. 13, is that an electric machine 40 can be connected to any shaft as a generator and/or as an additional drive.